

6J6A

Medium-Mu Twin Triode

7-PIN MINIATURE TYPE

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC) 6.3 volts

Current $0.45 \pm 6\%$ amp

Warm-up time (Average) 11 sec

Direct Interelectrode Capacitances (Approx.):

	Without External Shield	With External Shield ^a	
Unit No.1			
Grid to plate.	1.6	1.5	μmf
Grid to cathode and heater . . .	2.2	2.6	μmf
Plate to cathode and heater. . .	0.4	1.6	μmf
Unit No.2			
Grid to plate.	1.6	1.5	μmf
Grid to cathode and heater . . .	2.2	2.6	μmf
Plate to cathode and heater. . .	0.4	1	μmf

Characteristics, Class A₁ Amplifier (Each Unit):

Plate Supply Voltage 100 volts

Cathode Resistor^b 50^c ohms

Amplification Factor 38

Plate Resistance (Approx.) 7100 ohms

Transconductance 5300 μmhos

Plate Current. 8.5 ma

Mechanical:

Operating Position Any

Maximum Overall Length 2-1/8"

Maximum Seated Length. 1-7/8"

Length, Base Seat to Bulb Top (Excluding tip) . . 1-1/2" $\pm 3/32$ "

Diameter 0.650" to 0.750"

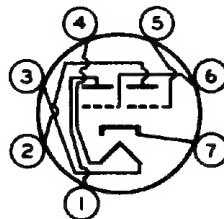
Dimensional Outline. See *General Section*

Bulb T5-1/2

Base Small-Button Miniature 7-Pin (JEDEC No.E7-1)

Basing Designation for BOTTOM VIEW 7BF

Pin 1 - Plate of
Unit No.2
Pin 2 - Plate of
Unit No.1
Pin 3 - Heater
Pin 4 - Heater



Pin 5 - Grid of
Unit No.1
Pin 6 - Grid of
Unit No.2
Pin 7 - Cathode



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Electron Tube Division
Harrison, N. J.

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AMPLIFIER — Class A₁

Values are for Each Unit

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE	300 max.	volts
GRID VOLTAGE:		
Positive-bias value	0 max.	volts
PLATE DISSIPATION	1.5 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode.	100 max.	volts
Heater positive with respect to cathode.	100 max.	volts

Maximum Circuit Values:

Grid-Circuit Resistance:		
For cathode-bias operation	0.5 max.	megohm

RF POWER AMPLIFIER & OSCILLATOR — Class C Telegraphy

Key-down conditions per tube without modulation

Values are for Each Unit

Maximum Ratings, Design-Center Values:

DC PLATE VOLTAGE	300 max.	volts
DC GRID VOLTAGE:		
Negative-bias value	40 max.	volts
Positive-bias value	0 max.	volts
DC PLATE CURRENT	15 max.	ma
DC GRID CURRENT	8 max.	ma
DC PLATE INPUT	4.5 max.	watts
PLATE DISSIPATION	1.5 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode.	100 max.	volts
Heater positive with respect to cathode.	100 max.	volts

Typical Push-Pull Operation at Frequencies up to 50 Mc:^d

Values are for Both Units

DC Plate Voltage	150	volts
DC Grid Voltage:		
From a fixed supply of	-10	volts
From a grid resistor of	625	ohms
From a cathode resistor of	220	ohms
DC Plate Current	30	ma
DC Grid Current (Approx.) ^e	16	ma
Driving Power (Approx.) ^e	0.35	watt
Useful Power Output (Approx.)	3.5	watts

^a With external shield JEDEC No.316 connected to cathode.

^b Fixed-bias operation is not recommended.

^c Value is for both units operating at the specified conditions.

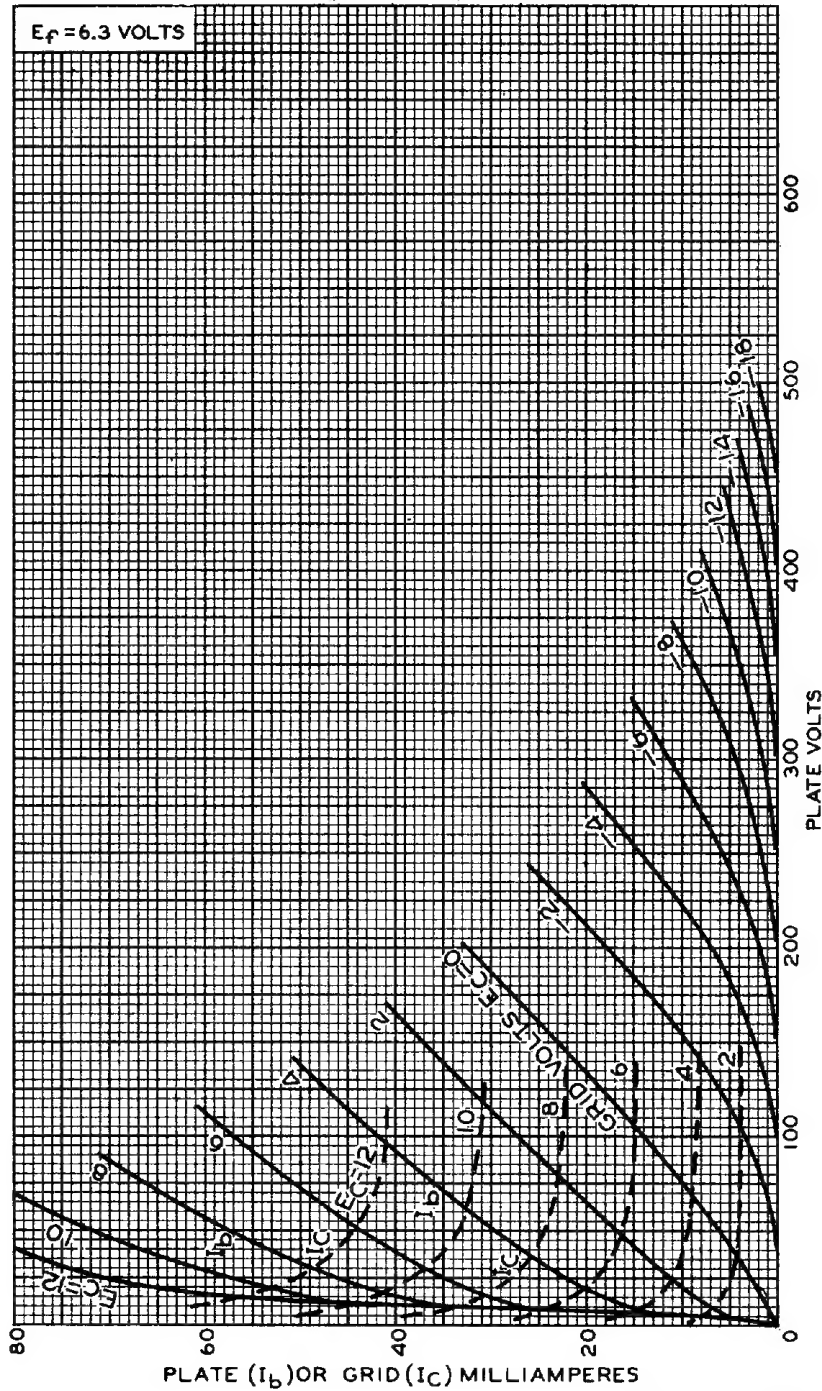
^d Approximately 1 watt can be obtained when the 6J6A is used at 250 Mc as a push-pull oscillator with a plate voltage of 150 volts, with maximum-rated plate dissipation, and with a grid resistor of 2000 ohms common to both units

^e For effect of load resistance on grid current and driving power, refer to **TUBE RATINGS—Grid Current and Driving Power** in the General Section.



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AVERAGE CHARACTERISTICS Each Unit

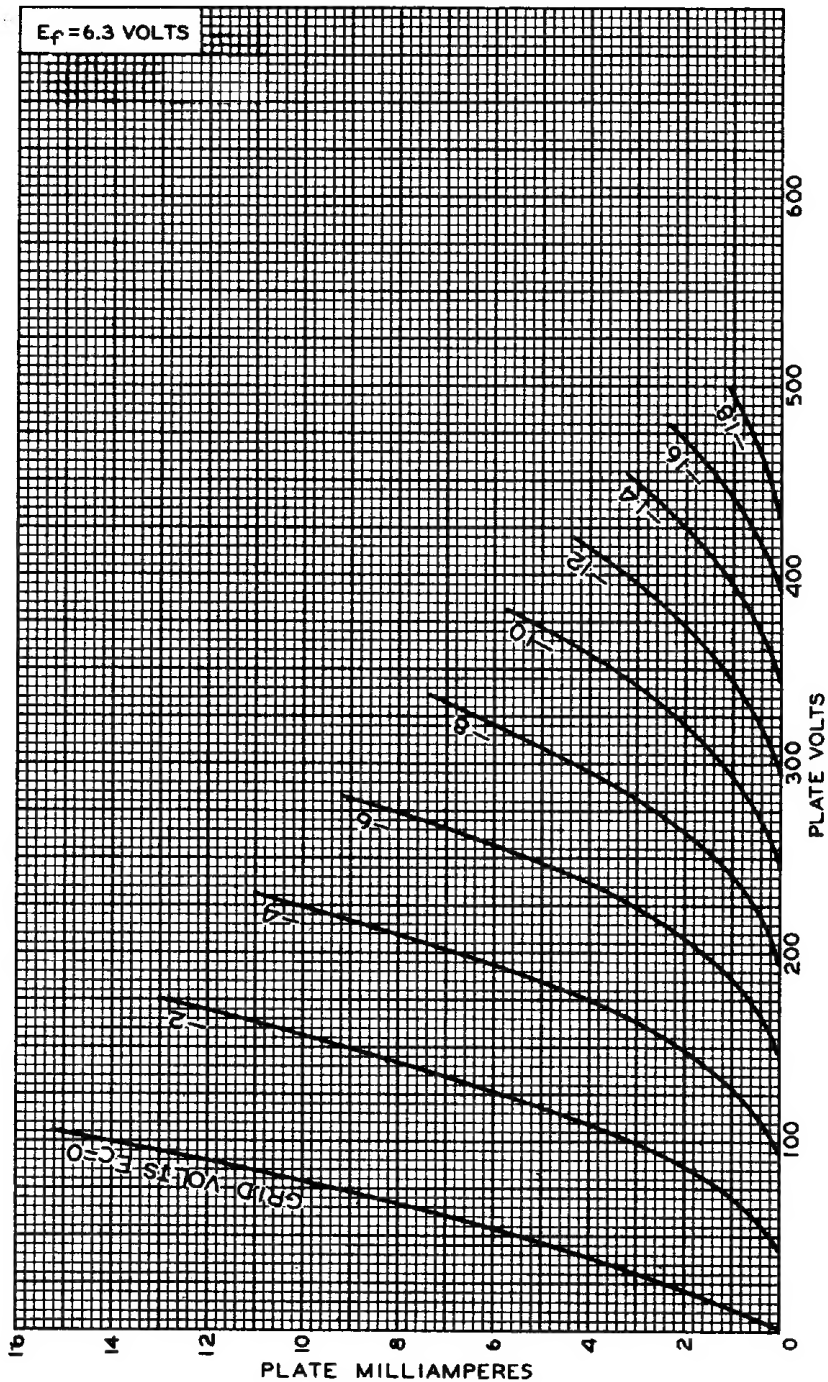


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AVERAGE PLATE CHARACTERISTICS Each Unit



92CM-6402R1

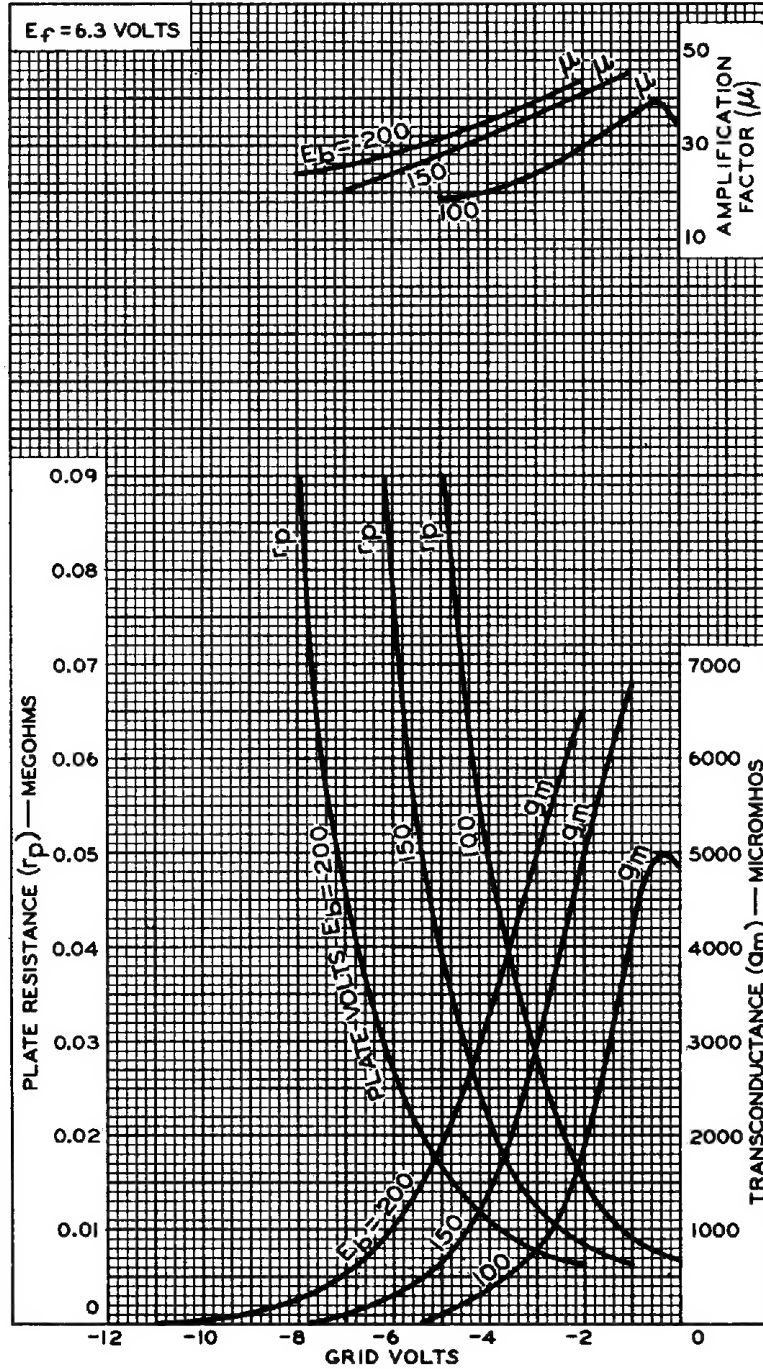
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AVERAGE CHARACTERISTICS Each Unit



92CM-7672R1



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